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SUPPLY CENTER, COLUMBUS,
(MIRR) ACCOMPANYING EACH
IN BLOCK 16 FOLLOWING

ACT OR ORDER, THE
MARKED "REBUILT-WARRANTED
PTANCE.

NOTE 1 IF ALTERNATORS ARE TO BE TESTED USING OEM SPECS. (SEE PARA. C-1),
OFFERORS OF REBUILT ALTERNATORS MUST IDENTIFY, BY TITLE AND DATE,
AND HAVE AVAILABLE TO THE GOVERNMENT UPON REQUEST, THE ORIGINAL
EQUIPMENT MANUFACTURERS SPECIFICATIONS. FAILURE TO IDENTIFY THESE
SPECIFICATIONS WILL RENDER OFFERS OF REBUILT ALTERNATORS TECHNICALLY
UNACCEPTABLE.

NOTE 2. THE CONTRACTOR MUST HAVE AVAILABLE TO THE GOVERNMENT, UPON
REQUEST, A NEW ALTERNATOR OF THE REQUIRED OEM PART NUMBER.
THIS ALTERNATOR IS TO BE USED FOR THE DETERMINATION OF THE
ACCEPTABILITY OF THE GENERAL CONFIGURATION OF THE REBUILT PRO-
DUCT, PLUS THE CONFORMANCE TO CITED DIMENSIONAL LIMITATIONS.

*NOTE 3 - ADD TO PARA C.1., "IF THE O.E.M. ORIGINAL SPEC
VALUES FOR VOLTAGE AND CURRENT OUTPUT, CUT IN RPMs AND
MAXIMUM RPM FOR RATED OUTPUT ARE NOT AVAILABLE, AN ALTER-
NATE METHOD OF OBTAINING THESE VALUES WOULD BE TO UTILIZE
THE AVERAGE OF THE RESULTS OBTAINED FROM THE TESTING OF
THREE OF THE NEW O.E.M. ALTERNATORS REQUIRED FOR THIS
SPECIFIC NSN. THESE AVERAGE VALUES SHALL BE USED AS THE
TESTING CRITERIA IN LIEU OF O.E.M. SPEC VALUES. THE
ACTUAL O.E.M. ALTERNATORS USED IN DETERMINING THESE TEST
VALUES SHALL BE MADE AVAILABLE TO THE GOVERNMENT UPON
REQUEST, ALONG WITH THE TABULATION OF TEST RESULTS FOR
VERIFICATION AND CONFIRMATION.

REVISIONS				
SYM	ZONE	DESCRIPTION	DATE	APPROVED
A		REVISED PARA D5, ADDED PARA D6	14 FEB 79	CRP
B ₂		① ADDED NOTE ② PAR. D 3, last line, changed from "(a)" to "(1)"	3/2/81	JS
C ₂		① ADDED NOTE 2 ② REVISED	5/14/81	CH
D ₃		① PARA C-1 REVISED ② NOTE 1 REVISED ③ NOTE 3 ADDED	12-1-81	CH

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.			DO NOT SCALE THIS DRAWING		DEFENSE CONSTRUCTION SUPPLY CENTER COLUMBUS, OHIO		
TOLERANCES ON			DRN. BY:	DATE:	ACCEPTANCE CRITERIA FOR REBUILT ALTERNATOR MULTIPLE NSN		
FRACTIONS	DECIMALS	ANGLES	Don Alexander	4/22/76			
MATERIAL:			APP. BY:	DATE:	CODE IDENT NO.		SIZE
			Chene	6/16/76	16236		
			DSGN. BY:	DATE:	CS 2920-0012		
			Robert L. Borchers	6/16/76	SCALE		SHEET 1 OF 1
			APP. BY:	DATE:			
			Richard O. Beecher	6/17/76			

ALTERNATOR

MANUFACTURER:

MANUFACTURER'S PART NUMBER:

USED ON:

(C₂)

REBUILT/REMANUFACTURED ALTERNATOR IS ACCEPTABLE PROVIDING THE FOLLOWING REBUILD CRITERIA AND QUALITY PROVISIONS ARE COMPLIED WITH, AND THE REBUILT ALTERNATOR IS OF THE OEM PART NUMBER CITED IN THE CONTRACT:

A. DEFINITIONS

1. CEM. THIS TERM MEANS THE ORIGINAL EQUIPMENT MANUFACTURER, WHICH IS THE FIRM THAT ORIGINALLY MANUFACTURED, FABRICATED, OR SUPPLIED A VEHICLE, A VEHICLE COMPONENT OR A VEHICLE PART. OEM MAY INCLUDE ITEMS MANUFACTURED OR REMANUFACTURED BY A SUBCONTRACTOR FOR AN ORIGINAL EQUIPMENT MANUFACTURER, PROVIDED THAT THE NAME OR TRADEMARK OF THE OEM IS SHOWN ON THE ITEM OR COMPONENT.

2. AFTERMARKET PART. ANY PART THAT HAS BEEN MANUFACTURED AND SOLD AS A REPLACEMENT PART FOR AN OEM PART OR COMPONENT.

3. SERVICEABLE PART. ANY PART OF THE ALTERNATOR THAT MEETS OR EXCEEDS MINIMUM OEM STANDARDS.

4. NONSERVICEABLE PART. ANY PART OF THE ALTERNATOR THAT NO LONGER MEETS MINIMUM OEM STANDARDS.

5. REBUILT ALTERNATORS A REBUILT/REMANUFACTURED ALTERNATOR THAT HAS BEEN PROCESSED AND TESTED TO MEET OR EXCEED THE REQUIREMENTS OF THIS DESCRIPTION AND WHICH WILL PROVIDE SERVICE AND LIFE EXPECTANCY AS GOOD AS ORIGINAL OEM SPECIFICATIONS.

B. WORK REQUIREMENTS

1. CONTRACTORS SHALL MAINTAIN THE HIGHEST POSSIBLE STANDARDS OF WORKMANSHIP AND QUALITY STANDARDS IN ACCORDANCE WITH SPECIFIC INSTRUCTIONS PROVIDED IN THIS DESCRIPTION AND THOSE ESTABLISHED WITHIN THE AUTOMOTIVE REBUILDING INDUSTRY.

2. ALTERNATORS SHALL BE COMPLETELY DISASSEMBLED AND THOROUGHLY CLEANED FREE OF GREASE AND FOREIGN RESIDUE BY CHEMICALLY CLEANING. ALL END FRAMES AND PULLEYS WILL BE CLEANED BY BLASTING OR TUMBLING TO BE FREE OF RUST, SCALE AND FOREIGN RESIDUE.

3. END FRAMES SHALL BE EXAMINED FOR CRACKS, DAMAGED THREADS AND WORN MOUNTING HOLES, AND SHALL BE DISCARDED AS NONSERVICEABLE FOR THESE REASONS. TERMINAL POSTS AND INSULATORS WILL REQUIRE REPLACEMENT. BEARING BORE ID WILL BE CHECKED AND MUST BE WITHIN OEM SPECIFICATION TOLERANCE.

4. STATOR ASSEMBLIES WILL BE CLEANED THOROUGHLY USING SOLVENTS THAT WILL NOT DAMAGE THE WIRING INSULATING ENAMEL. STATOR ASSEMBLIES WITH BURNED COILS, DISCOLORED WINDING, DISCOLORED INSULATION, SHORTED TURNS WITHIN A COIL AND WITH COIL TO COIL SHORTS WILL NOT BE REUSED AS IS BUT WILL REQUIRE REWORK TO MEET OR EXCEED MINIMUM OEM REQUIREMENTS.

5. STATOR CORES WILL BE CHECKED FOR DAMAGE OR DISTORTION CAUSED BY DRAGGING OR RUBBING ROTOR. STATOR CORE LAMINATIONS MUST BE IN ORIGINAL PARALLEL OR FLAT CONDITION. LEAD INSULATION, FAULTY NEUTRAL JUNCTION SPLICES WILL BE RESTORED. STATOR WINDINGS SHALL BE TESTED FOR EQUAL OR BALANCED RESISTANCE AND GROUNDS. EACH COIL WINDING SHALL BE TESTED WITH EQUIPMENT SPECIFICALLY DESIGNED FOR THIS USE.

6. ALL STATORS, REGARDLESS OF THE TYPE WINDING, WIRE SIZE, NUMBER OF TURNS OR INSULATION REQUIREMENTS, SHALL ADHERE TO THE PERFORMANCE CHARACTERISTICS OF THE OEM ORIGINAL SPECIFICATIONS.

7. ALL STATORS AND ROTORS SHALL BE VARNISHED AND BAKED WITH A MATERIAL TO SET THE WINDINGS, FORM A PROTECTIVE COATING OVER THE WINDINGS FOR RESISTANCE TO MOISTURE, OILS, ETC., AND EFFECT A SOLID MASS WHICH WILL PREVENT MOVEMENT OF WIRES IN OPERATION.

8. ROTOR ASSEMBLIES WILL BE CLEANED THOROUGHLY USING SOLVENTS THAT WILL NOT DAMAGE THE WIRING INSULATING ENAMEL. ROTOR COILS NOT SHOWING SIGNS OF FLAKING INSULATION OR BURNS, AND WHICH MEET OEM ELECTRICAL RESISTANCE AND GROUND SPECIFICATIONS, (USING OHMMETER AND AMPERS CHECK), MAY BE REUSED.

9. THE FOLLOWING ADDITIONAL CHECKS FOR ROTOR ACCEPTABILITY SHALL BE COUPLIED WITH:

a. WORN SLIP RINGS SHALL BE MACHINED, BUT NOT TO EXCEED 0.016 INCH UNDER ORIGINAL SIZE; OTHERWISE, REPLACE SLIP RING ECCENTRICITY SHALL NOT EXCEED 0.002 INCH MAXIMUM.

b. CONNECTIONS AT SLIP RING TERMINALS SHALL BE RESOLDERED IF NECESSARY.

c. ROTOR SHAFT ON NEEDLE BEARING END SHALL NOT EXCEED MICRO FINISH OF 20 R.M.S. AND THE ECCENTRICITY IN THE NEEDLE BEARING AREA SHALL NOT EXCEED 0.0004 INCH.

d. THE ROTOR SHAFT ECCENTRICITY IN THE PULLEY AREA SHALL NOT EXCEED 0.003 INCH.

10. ALL BEARINGS SHALL BE REPLACED.

11. THE RECTIFIER OR DIODE ASSEMBLY WILL BE CHECKED FOR CRACKS AND DISTORTION AND ELECTRICALLY CHECKED FOR GROUND, SHORTED OR OPEN CONDITION. A FUNCTIONAL TEST ON THE ASSEMBLY WILL BE CONDUCTED, USING A TESTER DESIGNED AND BUILT FOR THIS PURPOSE. DIODES FAILING THE FUNCTIONAL TEST OR EXHIBITING THE ABOVE DEFECTS WILL NOT BE USED. DIODES THAT PRESS IN MUST HAVE A MINIMUM 0.001 INCH PRESS FIT.

12. THE BRUSH HOLDER ASSEMBLY MUST BE FREE OF CRACKS OR DISTORTION. ALL BRUSH SPRINGS AND BRUSHES WILL BE REPLACED NEW.

13. THE ALTERNATOR WILL BE REASSEMBLED WITH SPECIFIC ATTENTION BEING GIVEN TO THE ROTOR AIR GAP AND THE END FRAME ALIGNMENT WITH THE STATOR. IF A PULLEY IS INSTALLED, IT MUST MEET MINIMUM OEM SERVICEABILITY REQUIREMENTS AND CONCENTRIC TO WITHIN 0.025 INCH T.I.R. FOR ALTERNATOR FURNISHED WITHOUT PULLEYS A SUITABLE SPACER AND NUT SHOULD BE INSTALLED ON SHAFT TO RESTRAIN THE ROTOR FROM AXIAL MOVEMENT.

14. EACH ALTERNATOR WILL BE IDENTIFIED WITH A METAL TAG OR METAL FOIL PLATE SHOWING THE REBUILD FACILITY NAME, THE DATE REBUILT, THE NSN (IF APPLICABLE), AND THE CONTRACT NUMBER.

C. INSPECTION AND ACCEPTANCE

1. ALTERNATORS WILL BE 100% BENCH PERFORMANCE TESTED FOR VOLTAGE AND CURRENT OUTPUT, CUT IN RPMs AND MAXIMUM RPM FOR RATED OUTPUT IN RESPECTIVE CATEGORY, AND MEET OR EXCEED THE ESTABLISHED OEM STANDARDS FOR THESE ABOVE TESTS. ALSO CHECK FOR NOISY BEARINGS. (SEE NOTE 3 FOR OPTIONAL TEST VALUES).

2. COMPLETENESS OF ASSEMBLY.

3. APPEARANCE: FREE OF SCALE, CRACKS AND FOREIGN RESIDUE.

4. WORKMANSHIP: IMPROPER ASSEMBLY, RUBBING ROTOR, OBVIOUS NICKS AND DENTS.

D. WARRANTY.

1. THE CONTRACTOR WARRANTS EACH REMANUFACTURED ALTERNATOR TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP AND SHALL RENDER SATISFACTORY SERVICE AFTER INSTALLATION, PROVIDED THE UNIT IS INSTALLED WITHIN 12 MONTHS AFTER DATE OF DELIVERY. THE WARRANTY SHALL COVER A PERIOD OF 90 DAYS OR 4,000 MILES OPERATING FOR OVER THE ROAD VEHICLES AND 90 DAYS OR 250 HOURS OPERATION FOR OFF THE ROAD AND WAREHOUSE TYPE VEHICLES, WHICHEVER OCCURS FIRST.

2. IF THE WARRANTY IS BREACHED, THE GOVERNMENT AT ITS OPTION BY NOTICE IN WRITING MAY

a. REQUIRE THE CONTRACTOR TO REPAIR OR REPLACE THE DEFECTIVE ALTERNATOR,

b. REPAIR THE DEFECTIVE ALTERNATOR AND ASSESS THE CONTRACTOR THE COSTS INCURRED FOR PARTS AND DIRECT LABOR REQUIRED TO EFFECT THE REPAIR.

3. ANY DEFECTIVE ALTERNATOR WHICH IS REPAIRED OR REPLACED BY THE CONTRACTOR SHALL BE SUBJECT TO THIS CLAUSE TO SAME EXTENT AS THE UNITS ORIGINALLY DELIVERED. THE WARRANTY FOR THE REPAIRED OR REPLACED ALTERNATOR SHALL BE OF THE SAME DURATION AS SET FORTH IN PARAGRAPH (1) ABOVE.

4. THE RIGHTS PROVIDED THE GOVERNMENT BY THIS CLAUSE ARE ADDITION TO AND DO NOT LIMIT ANY RIGHTS AFFORDED TO THE GOVERNMENT BY OTHER CLAUSES OF THIS CONTRACT OR OTHERWISE PROVIDED BY LAW AND SHALL NOT BE AFFECTED IN ANY WAY BY OTHER PROVISIONS UNDER THIS CONTRACT CONCERNING THE CONCLUSIVENESS OF INSPECTION AND ACCEPTANCE.

5. IN ADDITION TO THE MARKING REQUIREMENTS OF THE CONTRACT, EACH WARRANTED ITEM MUST BE MARKED BY THE CONTRACTOR AFFIXING A CLOTH TAG OR DURABLE LABEL STATING THE CONTRACT NUMBER AND "ITEM WARRANTED AFTER INSTALLATION PROVIDED THE UNIT IS INSTALLED WITHIN 12 MONTHS AFTER DATE OF DELIVERY TO THE GOVERNMENT. THE WARRANTY SHALL COVER A PERIOD OF 90 DAYS OR 4,000 MILES OPERATION FOR OVER THE ROAD VEHICLES AND 90 DAYS OR 250 HOURS OPERATION FOR OFF THE ROAD AND WAREHOUSE TYPE VEHICLES, WHICHEVER OCCURS FIRST. REPORT DEFECTIVE ITEMS WITH CITATION OF CONTRACT NUMBER TO THE COMMANDING OFFICER, DEFENSE CONSTRUCTION SUPPLY CENTER, COLUMBUS, OHIO, 43215, ATTN: DCSC-SQD." THE DD FORM 250 (MIRR) ACCOMPANYING EACH SHIPMENT MUST INCLUDE THE WORDS "WARRANTED ITEM" IN BLOCK 16 FOLLOWING THE ITEM DESCRIPTION.

6. IN ADDITION TO THE MARKING REQUIRED BY THE CONTRACT OR ORDER, THE EXTERIOR OF EACH UNIT CONTAINER SHALL BE BOLDLY MARKED "REBUILT-WARRANTED ITEM" AND THE DATE OF GOVERNMENT INSPECTION/ACCEPTANCE.

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